

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L.Ch 21, §§26-53),

Massachusetts Water Resources Authority

is authorized to discharge from a facility located at

**Cosgrove Intake Facility
301 Boylston Street
Clinton MA 01570**

to receiving water named

North Brook, Concord River Watershed - 82

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective **thirty days from the date of signature.**

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit consists of 10 pages in Part I including effluent limitations, monitoring requirements and 35 pages in Part II including General Conditions and Definitions.

Signed this 25th day of October, 2002

/Signature on File/

Linda M. Murphy, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Glenn Haas, Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent from outfall serial number 001 containing intake screen wash water, reservoir foundation leakage, test water, pump seal water, non-contact cooling water, hydroelectric turbine bearing lubrication and cooling water and storm water to North Brook, a tributary of the Assabet River. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement⁷</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow ¹	gallons per day	----	----	Report	Daily	Estimated
pH (See Part I.A.1.b.)	S.U.	----	----	See Part I.A.3.b. Page 3	semiannual ⁶	Grab
Total Suspended Solids	mg/l	30	----	50	semiannual ^{2,6}	24-Hour Composite
Oil & Grease	mg/l	----	----	Report	semiannual	Grab

2. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent from outfall serial number 002 treated drinking water to the Wachusett Reservoir. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow ³	gallons per day	Report	----	Report	Daily	Continuous Measurement
pH (See Part I.A.1.b.)	S.U.	----	----	See Part I.A.3.b. Page 3	Daily	Grab
Total Residual Chlorine ^{4,5}	ug/l	11		19	Daily	Grab

Footnotes:

- For flow, report total flow used for each operating date.
- Total Suspended Solids are to be tested during intake screen wash events. The effluent sample for TSS shall be water from the intake screen wash event comingled with water from the continuous discharge to the facility sump.
- Flow must be measured for each treatment train daily to assure the dilutions anticipated by the permittee and submitted as part of the supplemental application are achieved.
- Total Residual Chlorine is to be sampled daily and report the monthly average and daily maximum for the quarterly reporting period.
- The minimum level (ML) for total residual chlorine is defined as 50 ug/l. This value is the minimum level for chlorine using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastes, Method 4500 CL-E and G, or UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Manual of Methods of Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 50 ug/l, compliance/non-compliance will be

determined based on the ML. Sample results of 50 ug/l or less shall be reported as zero on the discharge monitoring report.

6. Semi-annual monitoring for pH and oil and grease shall be done during dry weather and a screen washing event.
7. Samples for outfall 001 shall be collected at the pump station tank.

Part I.A.3.

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
 - b. The pH shall be in the range of 6.5 through 8.3 standard units but no more than 0.5 units outside of the background range. There shall be no change from background conditions that would impair designated uses.
 - c. These waters shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to this inland water, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom.
 - d. These waters shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this inland water.
 - e. For receiving water designated as Class A, these waters shall be free from oil and grease, petrochemicals and other volatile or synthetic organic pollutants.
 - f. For receiving water designated as Class B, these waters shall be free from oil, grease, and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course or are deleterious or become toxic to aquatic life.
 - g. These waters shall have no taste or odor other than of natural origin.
 - h. Intake screen cleaning shall be conducted using reservoir water.
4. The Massachusetts Water Resources Authority must provide adequate notice to the Director of any substantial change in the volume or character of pollutants being discharged by the Massachusetts Water Resources Authority. Information shall include:
 - a. The quantity and quality of effluent introduced into the Massachusetts Water Resources Authority's discharge; and

- a. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the Cosgrove Intake Facility.

5. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

B. STORM WATER POLLUTION PREVENTION PLAN REQUIREMENT

- 1. A Storm Water Pollution Prevention Plan (SWPPP) shall be developed . The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The goal of the SWPPP is to help identify the sources of pollutants in industrial storm water discharge and to ensure practices are being implemented to minimize pollutants from entering industrial storm water discharge.
- 2. The Plan shall be completed, signed and submitted to EPA within 90 days after the effective date of this permit; the plan should be modified as necessary during the life of the permit. A current copy of the plan shall be maintained at the facility.
- 3. The SWPPP shall include, at a minimum, the following items:
 - a. Description of Potential Pollutant Sources - Each plan must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan must identify all activities and significant materials, which may potentially be significant pollutant sources. Each plan shall include:
 - i. A site map indicating: a delineation of the drainage area of each storm water outfall, each existing structural control measure to reduce pollutants in storm water runoff, locations where significant materials are exposed to storm water, locations where significant leaks or spills have occurred, a delineation of all impervious surfaces, all surface water bodies, all separate storm sewers, and the locations of the following activities where such areas are exposed to storm water: fueling stations, vehicle and equipment maintenance and/or cleaning areas, material

handling areas, process areas and waste disposal areas.

- ii. A topographic map extending one-quarter of a mile beyond the property boundaries of the facility;
- iii. An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as, but not limited to, area weighting.
- iv. A narrative description of significant materials that have been treated, stored or disposed of in a manner to allow exposure to storm water between the time of three (3) years prior to the issuance of this permit to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm water runoff between the time of three (3) years prior to the issuance of this permit and the present; materials loading and access areas; the location and description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;
- v. A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility three (3) years prior to the effective date of this permit to the present;
- vi. A list of any pollutants limited in effluent guidelines to which a facility is subject under 40 CFR Subchapter N, any pollutants listed on an NPDES permit to discharge process water, and any information required under 40 CFR 122.21(g)(iii)-(v).
- vii. For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in storm water associated with industrial activity;
- viii. A summary of existing sampling data describing pollutants in storm water discharges from the facility;
- ix. A list of any allowable non-storm water discharges, except discharges from fire fighting activities that are known or are reasonably expected to be present at the site. Allowable non-storm water discharges are limited to fire hydrant flushings; external building washdown that do not use detergents; lawn watering; uncontaminated ground water; springs; air conditioning condensate; potable waterline flushings; irrigation drainage; and foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials has occurred. If any of these discharges may reasonably be

expected to be present and to be mixed with storm water discharges, they must be specifically identified and addressed in the facility's SWPPP.

- b. Storm Water Management Controls - Each facility must develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness for implementing controls listed in the Plan must reflect identified potential sources of pollutants at the facility. The description of storm water management controls must address the following minimum components, including a schedule for implementing such controls:
 - i. Pollution Prevention Team - Each plan must identify a specific individual(s) within the facility organization as members of a team that are responsible for developing the Plan and assisting the plant manager in its implementation, maintenance, and revision. The Plan must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of facility's Plan.
 - ii. Risk Identification and Assessment/Material Inventory - The SWPPP must assess the potential of various sources at the plant to contribute pollutants to storm water discharge associated with the industrial activity. The Plan must include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor manufacturing or processing activities, significant dust or particulate generating processes, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water, and the history of significant leaks or spills of toxic or hazardous pollutants.
 - iii. Preventative Maintenance - A preventative maintenance program must involve inspections and maintenance of storm water management devices (i.e. oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters.
 - iv. Good Housekeeping - Good housekeeping requires the maintenance of a clean orderly facility.
 - v. Spill Prevention and Response Procedure - Areas where potential spills can occur and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the storm water drainage system must be eliminated whenever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in

the Plan and made available to the appropriate personnel.

- vi. Storm Water Management - The Plan must contain a narrative consideration of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources at the plant to contribute pollutants to storm water discharges associated with industrial activity, the Plan must provide that measures, determined to be reasonable and appropriate, must be implemented and maintained.
 - vii. Sediment and Erosion Prevention - The Plan must identify areas which; due to topography, activities, or factors; have a high potential for significant soil erosion and identify measures to limit erosion.
 - viii. Employee Training - Employee training programs must inform personnel responsible for implementing activities identified in the Plan, or otherwise responsible for storm water management at all levels, of the components and goals of the Plan. Training should address topics such as spill response, good housekeeping and material management practices. The Plan must identify periodic dates for such training.
 - ix. Visual Inspections - Qualified plant personnel must be identified to inspect designated equipment and plant areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. A tracking or follow up procedure must be used to ensure that the appropriate action has been in response to the inspection. Records of inspections must be maintained for five (5) years.
 - x. Recordkeeping and Internal Reporting Procedures - Incidents such as spill, or other discharges, along with other information describing the quality and quantity of storm water discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.
- c. Site Inspection - An annual site inspection must be conducted by appropriate personnel named in the SWPPP to verify that the description of potential pollutant sources required under part B.1 is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in storm water discharges associated with industrial activity identified in the Plan are being implemented and are adequate. A tracking or follow-up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records documenting significant observations made during the site inspection must be retained as part of the SWPPP for a minimum of five (5) years.
- d. Consistency with Other Plans - Storm water management controls may reflect

requirements for Spill Prevention Control and Counter-measure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by an NPDES permit and may incorporate any part of such plans into the SWPPP by reference.

- e. Amending the Plan - The permittee shall immediately amend the Plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Changes must be noted and then submitted to this department. Amendments to the Plan may be reviewed by EPA and/or MA DEP. If the Plan is reviewed the permittee may be notified at any time that the Plan does not meet one or more of the minimum requirements. After such notification by the EPA and/or MA DEP, the permittee shall make changes to the Plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided by the EPA and/or MA DEP, the permittee shall have thirty (30) days after such notification to make the necessary changes.

C. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from outfalls listed in Part I A.1 and 2. of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs) are not authorized by this permit and shall be reported in accordance with Section D.1.e. (1) of the General Requirements of this permit (Twenty-four hour reporting).

D. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) postmarked no later than the 15th day of the month following the effective date of the permit.

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

The State Agency address for all reports is:

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
Central Regional Office
Bureau of Waste Prevention
627 Main Street
Worcester, MA 01608

Signed and dated Discharge Monitoring Report Form(s) and all other reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

E. STATE PERMIT CONDITIONS

1. This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap.21, §43.
2. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as a NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.